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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,923

11/24/2003

Roger Bruce Harding

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EXAMINER

WHITE, EVERETT NMN

ART UNIT

PAPER NUMBER

1623

MAIL DATE

DELIVERY MODE

11/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/722,923	Applicant(s) HARDING ET AL.	
	Examiner Everett White	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 and 55-73 is/are pending in the application.
- 4a) Of the above claim(s) 4-10, 19, 24-42, 44-50, 55-70, 72 and 73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-18, 20-23, 43 and 71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The prosecution of the instant application has been reopen in view of the Notice of Panel Decision from the Pre-Appeal Brief Review filed August 31, 2007. In accordance to the Notice of Panel Decision from the Pre-Appeal Brief Review, all previous rejections are withdrawn.
2. Claims 1-50 and 55-73 are pending in the case; Claims 47-50 and 55-70 are withdrawn from consideration as being drawn to non-elected inventions.
3. The text of those sections of Title 35, U. S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 11-18, 20-23 and 71 are rejected under 35 U.S.C. 102(e) as being anticipated by Hyatt et al (US Patent No. 6,057,438).

Applicants claim a method of preparing cellulose ethers comprising the steps of:

- (a) obtaining mercerized and recovered cellulose pulp; and
- (b) converting the mercerized and recovered cellulose pulp into the cellulose ethers,

wherein the mercerized cellulose pulp in step (a) was mercerized with a cellulose II mercerizing agent, and when the cellulose ether prepared is hydroxyethyl cellulose and the cellulose pulp is southern softwood kraft, the mercerized and recovered cellulose pulp has at least one of the following properties:

- (i) a TAPPI 230 om-89 viscosity less than 10.4 cP or greater than 11.2 cP,

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- (ii) a solubility in 10% sodium hydroxide as determined by ASTM D 1696-95 of greater than 2.3%,
- (iii) a solubility in 18% sodium hydroxide as determined by ASTM D 1696-95 of greater than 1.3%,
- (iv) not been prehydrolyzed, or
- (v) not been bleached with elemental chlorine.

The Hyatt et al patent provides a process for producing dissolving-grade pulp from wood pulps in a co-production process with xylan by steps comprising: (1) intimately contacting with agitation a paper-grade, hardwood, kraft or soda pulp with aqueous sodium hydroxide solution at a temperature of about 50 to 100° C; (2) subjecting the slurry resulting from step (1) to liquid/solid separation and removing sodium hydroxide from the solid material separated; (3) intimately contacting the solid material obtained from step 2 with an aqueous solution of a xylanase enzyme; (4) subjecting the slurry resulting from step (3) to liquid/solid separation; (5) intimately contacting with agitation the solid material obtained from step (4) with aqueous sodium hydroxide solution at a temperature of about 50 to 100° C; and (6) subjecting the slurry resulting from step (5) to liquid/solid separation and removing sodium hydroxide from the solid material separated to obtain dissolving-grade pulp (see column 5, lines 26-51). Hyatt et al discloses that the dissolving-grade pulp produced may be used in the manufacture of cellulose ethers as instantly claimed (see column 5, lines 28-30 of the Hyatt et al patent). Contact of the pulp with aqueous sodium hydroxide solution as described in the Hyatt et al patent anticipate the mercerized steps of the instant claims. The Hyatt et al patent discloses that the dissolving-grade pulp may also be produced from sulfite pulp (see column 2, lines 4 and 5), which anticipates the use of sulfite pulp as the elected species (see Applicants response to the restriction requirement filed August 14, 2006). This description of the Hyatt et al patent anticipates the instantly claimed method of preparing cellulose ethers.

Claim Rejections - 35 USC § 103

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6. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hyatt et al (US Patent No. 6,057,438).

Applicants claim the method of claim 1, wherein the cellulose ether is a carboxymethyl cellulose.

Hyatt et al patent shows that the preparation of cellulose ethers is well known in the art. It is well known in the art that carboxymethyl cellulose is a cellulose ether.

One having ordinary skill in the art would have been motivated to employ the process of the prior art with the expectation of obtaining the desired product because the skilled artisan would have expected the analogous starting materials to react similarly.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of Applicants invention to replace the cellulose ether of the Hyatt et al patent with a carboxymethyl cellulose in view of their closely related structures and the resulting expectation of having similar paper making properties.

7. Claims 4-10, 19, 24-42, 44-46, 72 and 73 are withdrawn from consideration since these claims are drawn to cellulose ethers and cellulose pulp other than carboxymethyl-cellulose and sulfite pulp, which are the elected species selected by Applicants due to the Election of Species requirement filed June 27, 2006.

8. Claims 47-50 and 55-70 are drawn to non-elected inventions and are withdrawn from consideration.

Summary

9. Claims 1-3, 11-18, 20-23, 43 and 71 are rejected; Claims 4-10, 19, 24-42, 44-46, 72 and 73 are withdrawn from consideration due to being drawn to non-elected species; Claims 47-50 and 55-70 are withdrawn from consideration due to being non-elected inventions; and Claims 51-54 were previously canceled.

Examiner's Telephone Number, Fax Number, and Other Information

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Everett White whose telephone number is 571-272-0660. The examiner can normally be reached on 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia A. Jiang can be reached on 571-272-066127. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



E. White



Shaojia A. Jiang
Supervisory Primary Examiner
Technology Center 1600